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James J. Miller

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THE MATTHEWS FIRM
2000 BERING DRIVE
SUITE 700
HOUSTON, TX 77057

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ROWAN, KURT C

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES J. MILLER and
FRANCIS E. IV CHARLEVILLE

Appeal 2008-2806¹
Application 10/730,431
Technology Center 3600

Decided:² February 20, 2009

Before DEMETRA J. MILLS, RICHARD M. LEBOVITZ, and
FRANCISCO C. PRATS, *Administrative Patent Judges*.

LEBOVITZ, *Administrative Patent Judge*.

¹ Oral Hearing Held: January 15, 2009.

² The two-month time period for filing an appeal or commencing a civil action, as provided for in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

DECISION ON APPEAL

This is a decision on appeal from the Examiner's final rejection of claims 1-15 and 17-20. Jurisdiction for this appeal is under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

The claims are directed to a fish hook formed from a single wire. The hook comprises a coil ("tensioner") from which two shanks outwardly extend. There is a catch integral to one of the shanks which serves to secure the two shanks together in overlapping positions. When a fish swallows the hook with its mouth, opposing, lateral inward forces produced by the sides of the fish mouth automatically disengage the catch, releasing the hooks and forcing them into the sides of the mouth "thus catching the fish on the hooks" (Spec. 5:17-18).

Claims 1-15 and 17-20 are pending.³ Claims 1-15 and 17-20 stand rejected by the Examiner under 35 U.S.C. § 103(a) as obvious in view of Danielson (US 1,638,923, Aug. 16, 1927) and Schaefer (US 2,748,521, Jun. 5, 1956) (Ans. 3).⁴ Appellants argue the claims as three separate groups: 1) claims 1-14; 2) claims 15 and 17-19; and 3) claim 20 (App. Br. 9-10). Within each group, the claims stand or fall together (*id.*; see 37 C.F.R. § 41.37(c)(1)(vii)).

³ The Examiner stated that the copy of the appealed claims in the Appendix was incorrect and referred to the claims filed by Appellants in an amendment dated November 29, 2004. According to this amendment, claims 1-15 and 17-20 are pending.

⁴ Appellants' statement of the rejection on page 9 of the Brief does not include claims 7 and 8, which the Examiner indicated as rejected. We treat this as an error. The Examiner also erred in the statement of the rejection on page 3 of the Answer by including claim 16 which is canceled.

Claims 1, 15, and 20 are representative and read as follows:

1. An improved automatic fish hook apparatus formed from a single wire comprising:

- a first shank having a distal end;
- a second shank having a distal end;
- a tensioner disposed intermediate said first shank and said second shank at about the middle of said single piece of wire; and
- a catch, integral to said first shank, comprising an offset disposed about said first shank, and releasably in communication with said second shank,

wherein

said first shank and said second shank having a first state and a second state, said first state disposing said first shank and said second shank in substantially parallel planes and said second state disposing said first shank and said second shank crossed once, whereby in said first state, said first shank and said second shank depend down from said tensioner,

and whereby

said catch maintains said first shank and said second shank in said second state wherein said distal end of said first shank being at least partially obscured by said second shank and said distal end of said second shank being at least partially obscured by said first shank by crossing said distal ends of the respective shanks, and further whereby upon the application of two generally opposing forces applied about said first shank and said second shank, said first shank and said second shank are released into said first state, wherein the two generally opposing forces are independent of any pulling force exerted upon said fish hook apparatus.

15. An improved releasably biasable apparatus formed from a single piece of wire comprising:

- a first shank having a distal end;
- a second shank having a distal;
- a tensioner disposed intermediate said first shank and said second shank at about the middle of said single piece of wire; and
- a catch, integral to said first shank, comprising an offset disposed about said first shank, and releasably in communication with said second shank,

wherein

said first shank and said second shank having a first state, a second state, and a third state, said first state disposing said first shank and said second shank in substantially parallel planes, said second state disposing said first shank and said second shank crossed, and said third state disposing said first shank and said second shank crossed twice,

whereby

in said first state, said first shank and said second shank depend down from said tensioner,

and whereby

said catch maintains said first shank and said second shank in said second state wherein said distal end of said first shank is at least partially obscured by said second shank and said distal end of said second shank is at least partially obscured by said first shank by crossing said distal ends of the respective shanks, and further whereby upon the application of two generally opposing forces, applied about said first shank and said second shank, said first shank and said second shank are released into said third state wherein the two generally opposing forces are independent of any pulling force exerted upon said fish hook apparatus.

20. An improved automatic setting fish hook made from a single wire comprising:

a coiled spring having first and second members extending outwardly from the coiled spring, the first member having a curved end such that the end of the wire curves back toward the coiled spring, the second member extending outwardly in a substantially, similar direction to said first member,

said second member having an offset in the wire adjacent to its end such that to cock the automatic hook, the end of the first member is bent inwardly towards the second member, the second member is bent inwardly toward the first member, wherein the second member longitudinally is positioned on one side of the coil and the first member longitudinally is positioned on the other side of the coil, and wherein the offset of the second member, when it is bent inwardly, fits on the other side of the curved end of the first member so that the offset catches the end of the first member so that the first and second members are locked in position relative to each other, whereby when a fish grabs the ends of the members in their mouth, it overcomes the offset catch, and whereby the ends of the first and second members spring back outwardly away from each other to set the hook; and

said first and second members further comprise hooks adjacent to said ends.

ISSUES ON APPEAL

The primary issues to be decided in this appeal are as follows:

Does Danielson combined with Schaefer suggest the claimed limitation of “a catch, integral to said first shank, comprising an offset disposed about said first shank” as recited in claims 1 and 15?

Was there motivation with a reasonable expectation of success of combining Schaefer’s catch with Danielson’s fish hook to meet the limitations of claims 1 and 15?

Does Danielson combined with Schaefer suggest a fish hook capable of having its shanks cross twice when disengaged from the integral catch as in claim 15?

Does the combination of Danielson with Schaefer suggest the fish hook of claim 20?

PRINCIPLES OF LAW

To establish obviousness under 35 U.S.C. § 103, the following factors must be taken into consideration: (a) the scope and contents of the prior art; (b) the differences between the prior art and the claimed subject matter; (c) the level of skill in the pertinent art; and (d) evidence of secondary considerations. *Graham v. John Deere*, 383 U.S. 1, 17 (1966).

In making an obviousness determination, “there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F. 3d 977, 988 (Fed. Cir. 2006); *see also KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, ___, 127 S. Ct. 1727, 1740-1741 (2007).

Factual findings on obviousness include findings on: “1) the reason, suggestion, or motivation present in the prior art, in the knowledge of those of ordinary skill in the art, or in the problem of [relating to the claimed invention] which clearly and particularly would lead one of ordinary skill in the art to combine [the prior art]; 2) the level of ordinary skill in the art; and 3) . . . evidence of secondary considerations.” *Ruiz v. A.B. Chance Co.*, 234 F.3d 654, 660 (Fed. Cir. 2000).

FINDINGS OF FACT (“FF”)

Scope and content of the prior art

The Danielson patent

1. Danielson describes a “spring actuated” fish-hook having two shanks which are concealed within the body of an inanimate bait (Danielson, at 1:4-6; Figs. 1-2)).
2. Figure 1 shows the fish-hook in the secured position and Figure 3 shows the fish-hook in the open position. The hook is “formed from one piece of wire and looped, or coiled to form a coil-spring, as at 9” (Danielson, at 1:55-60).
3. Figures 1 and 3 of Danielson are reproduced below:

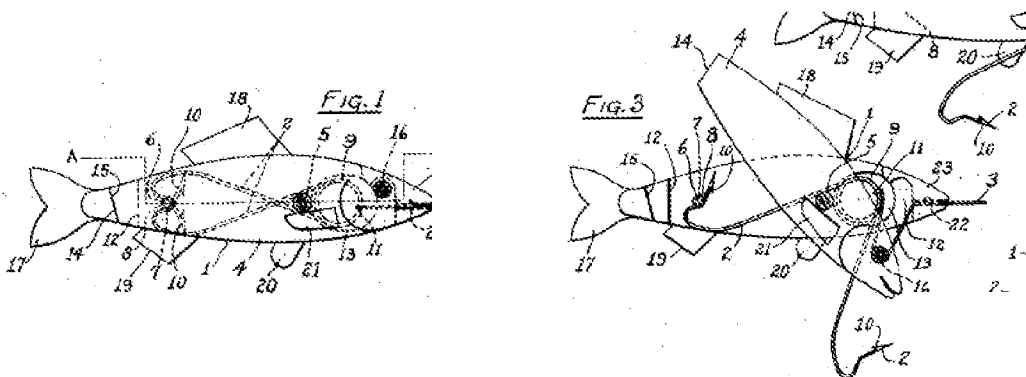


Figure 1 shows the fish-hook in the secured position with the fish-hook shanks 2 held in place by a pin 7 along an offset portion of the hook (Danielson, at 1:48-55). Figure 3 shows the fish-hook in the open position. 4. The hook is released into the open position by “a sudden jerk” on the hook by the fish-line to which the hook is attached (Danielson, at 1:66-70).

The Schaefer patent

5. Schaefer describes a fish lure “of the type in which two or more hooks or gaffs are pivoted together and normally retained in retracted position” (Schaefer, at col. 1, ll. 49-51).⁵

6. An arcuate or leaf spring is employed for forcibly projecting the hooks “when they are released by the action of a fish” (Schaefer, at col. 1, ll. 21-24; col. 2, ll. 34-37).

7. The hooks are retained in an inoperative position by an interlocking means 6 on the curved portion of one or both of the hooks

so that when the hooks are brought into overlapping position, as shown in Figures 1 and 4, they will be retained until such time as they are contacted by a fish or other object which will impart sufficient lateral movements to the hooks or one of the hooks to disengage the interlocking means

(Schaefer, at col. 1, ll. 63-68).

⁵ In the Oral Hearing, Appellants stated that “Schaefer isn’t a fishhook” but “is a hook gaff” (Oral Hearing 7, l. 6-7). However, as indicated in FF5-7, Schaefer describes a fish lure which is either a gaff or hooks.

The claimed invention

Claim 1

8. Claim 1 is directed to an automatic fish hook apparatus formed from a single wire and comprising:

9. a first and second shank, a tensioner, and a catch integral to the first shank and “comprising an offset disposed about said first shank.”

10. The hook has two states:

11. “first state disposing said first shank and said second shank in substantially parallel planes”; and

12. “second state disposing said first shank and said second shank crossed once” in which “said catch maintains said first shank and said second shank in said second state wherein said distal end of said first shank being at least partially obscured by said second shank and said distal end of said second shank being at least partially obscured by said first shank by crossing said distal ends of the respective shanks.”

13. “[U]pon the application of two generally opposing forces applied about said first shank and said second shank, said first shank and said second shank are released into said first state, wherein the two generally opposing forces are independent of any pulling force exerted upon said fish hook apparatus.”

14. Figure 6 shows an embodiment described in the Specification of the claimed hook in the second state which is also referred to as the “cocked position” or cocked state (Spec. 6:13):

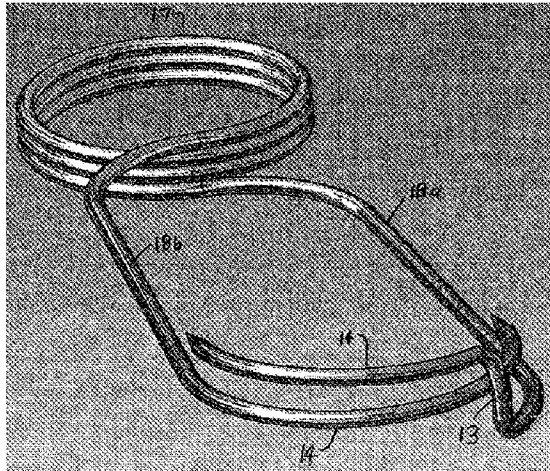


Figure 6 shows the hook in the claimed second state with catch offset 13.

15. When the catch is released by lateral inward movement of the fish mouth, the hook opens from the cocked position and the shanks are disposed in substantially parallel planes (Spec. 5:10-18; 11:13-16; Fig. 5). As it opens, the hooks pierce the opposing sides of the fish mouth.

Claim 15

16. Claim 15 has the same structure as in claim 1, but in addition is characterized as a having a “third state disposing said first shank and said second shank crossed twice.”

17. According to the Specification, the third state occurs when one shank disengages underneath the other shank, rather than in the preferred direction (Spec. 13:12-20). This state is illustrated in Figure 6C of the Specification.

Differences between the prior art and claims 1 and 15

18. Danielson describes a fish hook made of a single wire and having two shanks joined by a coil spring (FF1-3). This structure meets the limitations of claims 1 and 15 of first and second shanks and a tensioner (*see* FF 8-9). The “coil-spring” shown in Danielson’s Figures 1 and 3 corresponds to the claimed “tensioner” (*see* Final Rejection 2-3).

19. The shanks are held together by a pin 7 which acts as a catch (FF3). The catch is not integral to the first shank as required by claims 1 and 15 (*see* FF9).

20. Danielson's hook is also not disengaged by "two generally opposing forces . . . independent of any pulling force exerted upon said fish hook apparatus" as in claims 1 and 15, but rather is released by "a sudden jerk" on the hook by the fish-line to which the hook is attached (Danielson, at 1:66-70; FF4).

Reason to combine Danielson and Schaefer

21. Schaefer describes an integral and offset catch ("interlocking means") holding two hooks in "overlapping positions" (FF7) as in the second state recited in claims 1 and 15 (*see* FF12; *see* Final Rejection 2-3).

22. The hooks are released from Schaefer's catch by "lateral movements to the hooks or one of the hooks" by a fish (FF7). The Examiner finds that the "lateral movements" meet the limitation of claims 1 and 15 reciting that "two generally opposing forces applied about said first shank and said second shank . . . independent of any pulling force exerted upon said fish hook apparatus" release the shanks from the second state into the first state (*see* FF13) (*see* Final Rejection 2-3).

23. The Examiner finds that persons of ordinary skill in the art would have been prompted to replace Danielson's catch with Schaefer's:

Schaefer shows that upon the application of two generally opposing forces, the first and second shanks are released to hook the fish. Schaefer shows the two opposing forces being independent of any pulling force exerted on the fish hook apparatus as discussed in column 1, lines 65-68. Hence it would have been obvious to provide Danielson with a release as shown by Schaefer since merely one mechanically equivalent

release is being substituted for another and the function is the same noting that no unexpected results are shown.

(Final Rejection 3.)

Level of ordinary skill in the art

24. Persons of ordinary skill in the art were familiar with manufacturing automatic spring actuated fish hooks (Danielson, at 1:4-9; Schaefer, at 1:20-21, 23-25) and constructing interlocking means releasable by lateral movements on one or both hooks (*see* FF7)

ANALYSIS

Claims 1-14

The difference between claim 1 and Danielson is that Danielson does not describe a fish hook apparatus with an integral catch which is disengaged by opposing forces applied to the first and second shanks of the fish hook apparatus (FF18-20). However, Schaefer teaches a fish hook with a structure similar to Danielson's hook (FF5-7), but with an integral catch holding the hooks in "overlapping positions" (FF7) as in the second state recited in claim 1 (*see* FF21; Final Rejection 2-3) and which are released from the catch by generally opposing forces about the shanks (*see* FF22; Final Rejection 2-3). The Examiner finds that persons of ordinary skill in the art would have been prompted to replace Danielson's pin catch with Schaefer's integral catch in order to make the hook automatically release upon lateral movement by the fish (FF23; Final Rejection 5). This reasoning is sound and supported by the evidence of record. Consequently, we turn to Appellants' argument.

Appellants distinguish the claimed catch from that of Danielson, arguing that Danielson's catch is not integral to the hook nor released by

“two generally opposing forces” as in claim 1 (App. Br. 10-12, at ¶¶ 1-8). These arguments are not persuasive. The Examiner clearly recognized these differences and relied upon Schaefer to meet the corresponding limitations in the claims (FF22-23). Schaefer explicitly mentions a fish contacting “the hooks” or “one of the hooks” (FF7), indicating that the hook can be engaged with two opposing forces as in claim 1 or only one force.⁶

Appellants also contend that there would have been no motivation to have provided Danielson with Schaefer’s release (App. Br. 12-13, at ¶ 9). They state that Schaefer’s hook could not be made from a single wire and that Schaefer’s leaf spring must be separate from the fish hook shanks (*id.*). They contend:

no one skilled in the art would be motivated to combine Schaefer and Danielson to create a single wire fish hook because the Schaefer device is multi-piece and cannot be made from the same single wire that forms the fish hook. Further, there can be no reasonable expectation of success because Schaefer must be multi-part to work as taught and thus Schaefer would be destroyed and could not work if it were made from a single wire.

(*Id.*; *see also* Reply Br. 3).

These arguments are not persuasive. Appellants have not provided any objective evidence that Schaefer’s integral release could not be incorporated into Danielson’s single wire fish hook. Nor has Appellants provided evidence that it was beyond the ordinary level of skill in the art to fashion Danielson’s fish-hook with the kind of catch described in Schaefer.

⁶ In the Oral Hearing, Appellants stated that Schaefer “teaches away” from opposing forces or lateral movements (Oral Hearing 10). However, Schaefer states that a lateral movement to one hook or both hooks would disengage its interlocking means and thus teaches opposing forces to both sides of the hook as a distinct alternative.

The evidence of record establishes that such modifications were commensurate with the ordinary level of skill in the art (FF24). It is not disputed that Schaefer teaches a multi-part hook with a leaf spring separate from the hook shanks. However, it is not evident how this structure would negate motivation with a reasonable expectation of success to have fashioned Danielson's hook with a releasable catch as in Schaefer for the purpose of making it automatically release when contacted by a fish. Arguments of counsel cannot take the place of evidence lacking in the record. *Estee Lauder Inc. v. L'Oreal, S.A.*, 129 F.3d 588, 593 (Fed. Cir. 1997).

Appellants state that "by substituting the Schaefer catches 6 and removing the Danielson post 7, one skilled in the art could not be sure that such a combination would work without undue experimentation" (Reply Br. 5).

However, Schaefer describes a functional catch as in claim 1, without an additional post or attachment piece. Both Schaefer and Danielson describe spring operated hooks (*see* FF24). Thus, contrary to Appellants' argument, persons of ordinary skill in the art would have had every reason to expect that Schaefer's interlocking means be operable on a similar fish-hook with shanks and a coil as described by Danielson.

Appellants also contend the Schaefer catch 6 is not integral to the shank, but is added during manufacturing (Reply Br. 2-3, 5). Therefore, Appellants assert that the combination of Danielson and Schaefer does not meet the claimed limitation of an integral catch (Reply Br. 2).

This argument does not persuade us that the Examiner erred. Appellants have not pointed to any disclosure in Schaefer establishing that

the catch 6 is added during manufacturing; thus, this position is not supported by the evidence. Secondly, even were it true that the catch 6 was *added* to the shank in a certain embodiment described in Schaefer (see, e.g., Schaefer, at col. 1, ll. 62), Appellants have not provided evidence that Schaefer's catch (interlocking means) would have been understood to be limited to this construction.

Appellants also argue:

the Schaefer shanks are substantially small flat bars that are independent of each other and are thus independently fabricated. Thus, creating a surface to insert, weld, or otherwise attach a pin or other metal onto the shank to create the catch 6. However, the welding or mechanical attachment of the catch 6 to the Danielson shank may be difficult or impossible as the Danielson shank is a wire (i.e. no flat surface area like Schaefer) and since both the Danielson shanks are part of the same wire, it may damage the other shank when attempting to attach a Schaefer catch to the other shank.

(Reply Br. 5.)

There is no evidence that Schaefer's catch could not be produced using Danielson's single wire hook, even were the single wire not to be flat. Appellants' statement that attachment of a catch to Danielson's wire "may be difficult or impossible" is not supported by evidence. Persons of ordinary skill in the art were familiar with manufacturing spring operated fish hooks with releasable catches as in Schaefer (FF24). There is no specific direction in Schaefer on how to produce the catch, making it reasonable that such manufacture was commensurate with the ordinary level of skill in the art (*id.*). Appellants have not provided any rebuttal evidence that the combination of Danielson with Schaefer would not have worked or would

have been “difficult” or “impossible.” Obviousness is decided on evidence; Appellants have provided no evidence to support their position.

According to Appellants, claims 1, 15, and 17 “each claim a second state, the cocked state, wherein the first and second shanks are crossed **one time**. Both Danielson (Figure 2) and Schaefer (Figure 1) show that the shanks are crossed **twice** in the cocked position” (Reply Br. 4).

As shown in Figure 6 of the Specification, the shanks are crossed at the bottom of the coil (above elements labeled 18a and 18b) and also at the bottom of the hooks where they overlap (elements 14) (FF14). Danielson also shows two crossings at the very same positions: 1) at the bottom of the coil between positions 2 and 5 as shown in Figure 1 and where the hooks overlap (FF3). We do not see any structural difference between Appellants’ preferred embodiment and that of Danielson. In the cocked or closed state, both structures have an upper, first crossing where the coil ends and the shanks begin. We do not consider this first crossing to be a “crossed” shank as in claim 1 (“said first shank and said second shank crossed once”), but rather consider it to be a crossing that occurs in the coil. Thus, we do not agree that the Danielson’s structure differs from the structure which is claimed.

Claims 15 and 17-19

Claims 15 is directed to the same elements as in claim 1, but further recites that the hook has a “third state disposing said first shank and said second shank crossed twice” which apparently results when one shank disengages underneath the other shank, rather than in the preferred direction as shown in Figure 6C (FF16-17). We interpret this limitation to be an

intended use of the claimed fish hook, but not to further limit its structure. As discussed above, the claimed hook has the same shank and coil configuration as in Danielson. Thus, it is reasonable that Danielson's hook as modified by Schaefer would be capable of crossing twice as recited in claim 15.

Claim 20

Independent claim 20 is directed to an improved automatic setting fish hook comprising a coiled spring with outwardly extending members. The second member has "an offset in the wire adjacent to its end such that to cock the automatic hook.

Appellants argue that the Examiner "never specifically addressed Claim 20 in a separate rejection" (App. Br. 14).

On page 2 of the Final Rejection, the Examiner made findings "[i]n reference to claims 1, 15, 17, and **20**" (emphasis added) about Danielson's teachings. The Examiner also explained why it would have been obvious to have modified Danielson with Schaefer's teachings (Final Rejection 3). In making this statement, the Examiner did not expressly refer to any of the claims, but it is evident that the Examiner intended to address all the independent claims, including claim 20 which was explicitly mentioned in the initial statement of the rejection (*see* above). In sum, the Examiner made sufficient findings regarding the subject matter of claim 20 to have informed Appellants of the basis of the rejection.

Appellants further contend that neither Danielson nor Schaefer disclose or suggest an "offset is used to hold the first member adjacent to the second member when the hook is in its cocked state" (App. Br. 14).

The “cocked state” refers to the condition of the hook when the shanks are overlapped and in position to be engaged by inward forces supplied by the interior of the fish’s mouth clamping down on it (Spec. 13:1-9). As explained above, Schaefer describes an interlocking means that holds the hooks in a cocked position until contacted on either or both sides by the inward, lateral movement of a fish mouth (FF7). Thus, the claimed limitation is described by Schaefer.

According to Appellants, “neither [Danielson nor Schaefer] teaches that the end of the second member, because of the offset is longitudinally positioned on the opposite side of the coil than is the straight portion of the second member” (App. Br. 14-15).

Claim 20 recites “wherein the second member longitudinally is positioned on one side of the coil and the first member longitudinally is positioned on the other side of the coil.” Danielson’s fish hook has two lengthwise (longitudinal) shanks on either side of the coil. *See* Fig. 3 as reproduced in FF3. Thus, the limitation of the claim is met.

In their Reply Brief, Appellants make similar allegations as they did for claim 1, that certain structural features recited in claim 20 are absent or not suggested by the combination of Danielson and Schaefer. Appellants do not make clear what is the specific deficiency in the cited prior art. For the reasons already discussed and those set forth in the Final Rejection, we find that all the limitations of claim 20 are met.

CONCLUSIONS OF LAW

We affirm the rejection of claim 1 because Danielson’s combined with Schaefer suggests all its limitations, including of “a catch, integral to

said first shank, comprising an offset disposed about said first shank” and because there motivation with a reasonable expectation of success of combining Schaefer’s catch with Danielson’s fish hook. Claims 2-14 were not separately argued and fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(vii)).

The rejection of claim 15 is affirmed for the same reasons as for claim 1, and also because Danielson combined with Schaefer suggests a fish hook capable of having its shanks cross twice when disengaged from the catch as required by the claim. Claims 17-19 were not separately argued and fall with claim 15. *See id.*

The combination of Danielson with Schaefer suggests all the limitations of the fish hook of claim 20.

TIME PERIOD

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

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THE MATTHEWS FIRM
2000 BERING DRIVE
SUITE 700
HOUSTON TX 77057